

Appl. No. 10/080,883
Amdt. dated June 25, 2004
Reply to Office Action of March 29, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A thermal printer comprising:

a plurality of thermal print heads, each of the plurality of thermal print heads being operable to print a distinct one of a plurality of colors; and

dot size varying means for varying perceived levels of color printed by the thermal printer by varying sizes of dots printed by the plurality of thermal print heads,

wherein a first one of the plurality of thermal print heads has a first number of thermal elements that is energizable at a first rate, wherein a second one of the plurality of thermal print heads has a second number of thermal elements that is energizable at a second rate, the first number being different than the second number, the first rate being different from the second rate.

Claim 2 (canceled).

Claim 3 (original): The thermal printer of claim 1, wherein the plurality of colors comprises cyan, magenta, and yellow.

Claim 4 (original): The thermal printer of claim 3, wherein the plurality of colors further comprises black.

Claim 5 (original): The thermal printer of claim 1, further comprising:

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means for performing tone scale adjustment on an image to be printed;

means for performing thermal history correction on the image to be printed;

means for performing resistance profile correction on the image to be printed;

means for performing dithering on the image to be printed;

means for performing halftone dot location adjustment on the image to be printed; and

means for performing common mode voltage correction on the image to be printed.

Claim 6 (currently amended): A thermal printer comprising:

a plurality of thermal print heads, each of the plurality of thermal print heads being operable to print a distinct one of a plurality of colors, said plurality of thermal print heads being used to perform a thermal mass transfer method of printing selected from the group consisting of: (1) thermal mass transfer of a dye or pigment containing wax or resin, and (2) thermal mass transfer of an amorphous dye in combination with a thermal solvent,

dot size varying means for varying perceived levels of color printed by the thermal printer by varying sizes of dots printed by the plurality of thermal print heads; and

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wherein a first one of the plurality of thermal print heads has a first number of thermal elements that is energizable at a first rate, wherein a second one of the plurality of thermal print heads has a second number of thermal elements that is energizable at a second rate, the first number being different than the second number, the first rate being different from the second rate.

Claim 7 (canceled).

Claim 8 (canceled).

Claim 9 (original): The thermal printer of claim 6, wherein the plurality of colors comprises cyan, magenta, and yellow.

Claim 10 (original): The thermal printer of claim 9, wherein the plurality of colors further comprises black.

Claim 11 (original): The thermal printer of claim 6, further comprising:

means for performing tone scale adjustment on an image to be printed;

means for performing thermal history correction on the image to be printed;

means for performing resistance profile correction on the image to be printed;

means for performing dithering on the image to be printed;

means for performing halftone dot location adjustment on the image to be printed; and

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means for performing common mode voltage correction on the image to be printed.

Claim 12 (original): A thermal printer comprising:
a plurality of thermal print heads;

means for performing tone scale adjustment on an image to be printed;

means for performing thermal history correction on the image to be printed;

means for performing resistance profile correction on the image to be printed;

means for performing dithering on the image to be printed;

means for performing halftone dot location adjustment on the image to be printed; and

means for performing common mode voltage correction on the image to be printed.

Claim 13 (original): The thermal printer of claim 12, wherein the means for performing tone scale adjustment, the means for performing thermal history correction, the means for performing resistance profile correction, the means for performing dithering, the means for performing halftone dot location adjustment, and the means for performing common mode voltage correction are arranged to perform their respective functions in the order recited in claim 12.

Claims 14 - 51 (canceled).

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Claim 52 (currently amended): A method for use in a thermal printer having a plurality of thermal print heads, each of the plurality of thermal print heads being operable to print a distinct one of a plurality of colors, the method comprising a step of:

(A) varying perceived levels of color printed by the thermal printer by varying sizes of dots printed by the plurality of thermal print heads,

wherein a first one of the plurality of thermal print heads has a first number of thermal elements, wherein a second one of the plurality of thermal print heads has a second number of thermal elements, the first number being different than the second number:

(B) energizing the first one of the plurality of print heads at a first rate; and

(C) energizing the second one of the plurality of print heads at a second rate, wherein the first rate differs from the second rate.

Claim 53 (canceled).

Claim 54 (original): The method of claim 52, further comprising steps of:

(D) performing tone scale adjustment on an image to be printed;

(E) performing thermal history correction on the image to be printed;

(F) performing resistance profile correction on the image to be printed;

(G) performing dithering on the image to be printed;

(H) performing halftone dot location adjustment on the image to be printed; and

(I) performing common mode voltage correction on the image to be printed.

Claim 55 (currently amended): A method for use in a thermal printer, the thermal printer including a plurality of thermal print heads, each of the plurality of thermal print heads being operable to print a distinct one of a plurality of colors, the method comprising ~~a step~~ the steps of:

(A) printing using a thermal mass transfer method of printing selected from the group consisting of: (1) thermal mass transfer of a dye or pigment containing wax or resin, and (2) thermal mass transfer of an amorphous dye in combination with a thermal solvent,

(B) varying perceived levels of color printed by the thermal printer by varying sizes of dots printed by the plurality of thermal print heads,

wherein a first one of the plurality of thermal print heads has a first number of thermal elements, wherein a second one of the plurality of thermal print heads has a second number of thermal elements, the first number being different than the second number

(C) energizing the first one of the plurality of print heads at a first rate; and

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(D) energizing the second one of the plurality of print heads at a second rate, wherein the first rate differs from the second rate.

Claim 56 - 57 (canceled).

Claim 58 (original): The method of claim 55, further comprising steps of:

(E) performing tone scale adjustment on an image to be printed;

(F) performing thermal history correction on the image to be printed;

(G) performing resistance profile correction on the image to be printed;

(H) performing dithering on the image to be printed;

(I) performing halftone dot location adjustment on the image to be printed; and

(J) performing common mode voltage correction on the image to be printed.

Claim 59 (original): A method for use in a thermal printer, the thermal printer including a plurality of thermal print heads, the method comprising steps of:

(A) performing tone scale adjustment on an image to be printed;

(B) performing thermal history correction on the image to be printed;

(C) performing resistance profile correction on the image to be printed;

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(D) performing dithering on the image to be printed;

(E) performing halftone dot location adjustment on the image to be printed; and

(F) performing common mode voltage correction on the image to be printed.

Claim 60 (original): The method of claim 59, wherein the steps (A)-(F) are performed in the order recited.

Claims 61 - 91 (canceled).